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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hendricus Antonius Hoogland

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EXAMINER

MALEKZADEH, SEYED MASOUD

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

08/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,938	Applicant(s) HOOGLAND, HENDRICUS ANTONIUS	
	Examiner SEYED M. MALEKZADEH	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/12/2009 has been entered.

Response to Amendment

Claims **1- 13** are **pending**.

Claims **14- 19** are **cancelled**.

In view of the amendment, filed on 01/12/2009, following rejection are **withdrawn** from the previous office action, mailed on 07/10/2009, for the reason of record.

- Rejection of claims 1- 6 and 10- 12 under 35 U.S.C. 102(b) as being anticipated by Lovejoy et al. (US 3,905,740)
- Rejection of claims 1- 9 and 11- 13 under 35 U.S.C. 102(b) as being anticipated by Mc Donald (US 3,433,292)

New Grounds of Rejection

35 USC § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **1- 13** are rejected under 35 U.S.C. **112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim **1** recites “holders such as crates” in the first line, the phrase “**such as**” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d)

Claim **1** recites “slid-able rigid wall part” in the lines 4 and 5 which is a relative term which renders the claim indefinite. The term “**rigid**” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree of “rigid”, and one of ordinary skill in the art would not be reasonably apprised of the scope of the claim.

Claim **1** recites “desired product forming position” in the eighth line of the claim, which renders the claim indefinite. The term “**desired**” is not defined by the claim; the specification does not provide a standard for ascertaining the requisite degree of “desired”, and one of ordinary skill in the art would not be reasonably apprised of the scope of the claim.

Claim **3** recites “the first direction of movement is approximately at right angles” which renders the claim indefinite. The term “approximately” is not defined by the claim; the specification does not provide a standard for ascertaining the requisite degree of “approximately”, and one of ordinary skill in the art would not be reasonably apprised of the scope of the claim.

Claim **7** recites the limitation of "**a second core part**" in the fourth line of the claim. There is insufficient antecedent basis for this limitation in the claim because prior to the cited limitation, the claim fails to define “a first core part”. Clarification is requested.

Claim **7** recites “desired product forming volume” in the tenth line of the claim, which renders the claim indefinite. The term “**desired**” is not defined by the claim; the specification does not provide a standard for ascertaining the requisite degree of “desired”, and one of ordinary skill in the art would not be reasonably apprised of the scope of the claim.

Claim **7** recites the limitation "on opposite sides of said second core part" in the fifteenth line. There is insufficient antecedent basis for this limitation in the claim because prior to the cited limitation, the claim fails to clearly define "**opposite sides**" for the second core part.

Claim **7** recite the limitation "**the direction** of the central core" in the twenty first line of the claim. There is insufficient antecedent basis for this limitation in the claim because prior to the cited limitation the claim fails to

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clearly define any direction for the central core part. Does the limitation means "toward the direction of the central core" ? Clarification is requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

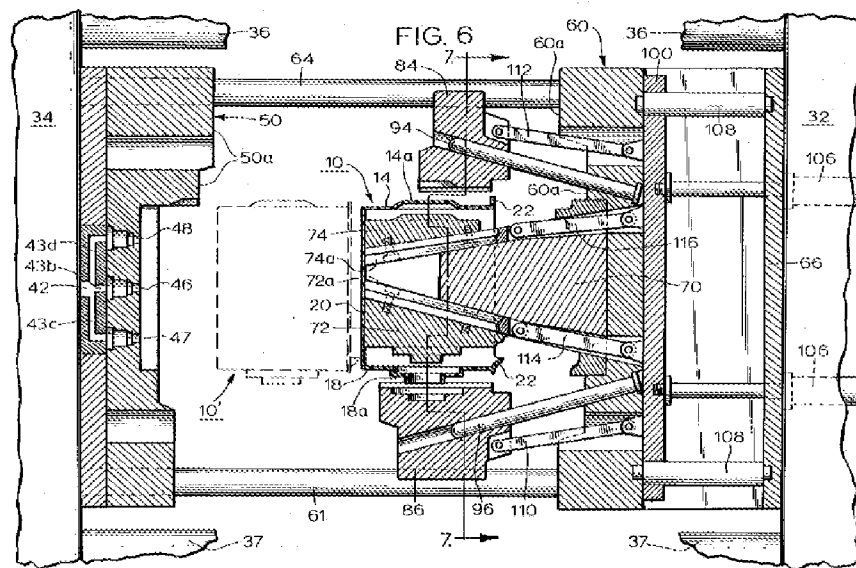
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1- 6 and 10- 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lovejoy et al (US 3,905,740) in view of Kumazaki (JP 57-115330)

Lovejoy et al ('740) teach an injection mold for making a polygonal plastic article having a closed bottom and an open top comprising a first mold section (50) as a first mold part fixedly secured to the stationary platen (34) and having

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a mold defining surface corresponding to the exterior dimensions of typical molded plastic article made, and a second mold section (60) as a second mold part which is fixedly secured to the movable platen (32) and is disposed in opposed facing relation to the first mold section (50). (See lines 31-36, column 3 and lines 61-67, column 3 and figure 6)



Furthermore, the prior art teaches the mold (30) includes a sidewall mold means comprising four separable sidewall members (80, 82, 84, and 86). The sidewall members (80, 82, 84, and 86) are interposed between the first and second mold sections (50 and 60) and in the closed position of the mold (30) correspond with the first mold section (50) to define the exterior sidewall contour of the molded article (10). (See lines 36-51, column 4) Furthermore, the sidewall members are each supported and guided by respective pairs of guide rods (90, 92, 94, and 96) of a guide means structure in which each pair

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of guide rods are provided for each of the side wall members. (See lines 63-68, column 4 and lines 1-5, column 5)

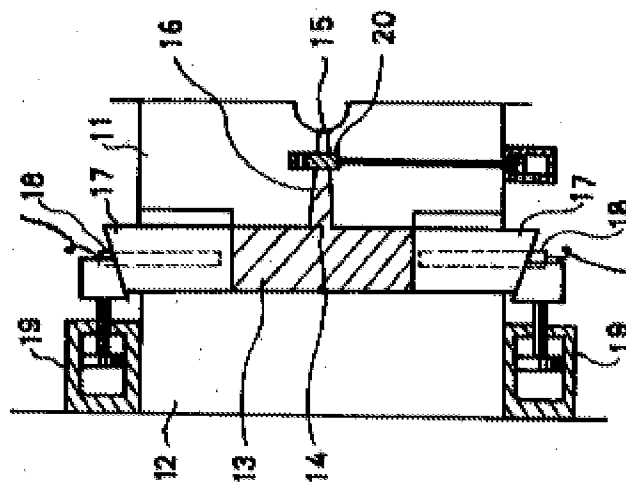
Moreover, Lovejoy et al ('740) teach the four sidewall members (80, 82, 84 and 86) are each formed as rectangular blocks and inter-fit in an overlapping relation. The sidewall elements in their closed position, collectively define the exterior sidewalls in the face contour of the mold cavity. (See lines 32-39, column 6 and figure 5) Also as shown, in an open position of the apparatus, the wall parts, together, provide a space volume which is greater than the volume of the wall parts in the closed position. (See figure 6 and lines 38-45, column 7)

Therefore, **as to claim 1**, Lovejoy et al ('740) disclose a mold apparatus comprising two mold parts (50 and 60), movable relative to each other in a first direction of movement; also the mold apparatus include a mold cavity in which the mold cavity being provided on both mold parts (50 and 60), and also four slide-able rigid wall parts movable in a second direction movement which are moveable between a first retracted position and a second expanded position while the mold cavity with the wall parts in the second position are in a product forming position and wall parts in the first position have a volume greater than with the wall parts in the second position while the first and the second direction of movement mutually include an angle.

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However, Lovejoy et al ('740) **fail to teach** the slid-able wall part also is movable within the mold cavity in a closed mold position, as claimed in **claim 1.**

In the analogous art, Kumazaki (JP '330) teach a movable metal mold comprising a stationary mold (11), a movable mold (12) by way of a gate (15) and a spool (16) with a pouring port (14) in which the stationary mold in which the stationary mold (11) and the movable mold (12) associating with two movable slide members (17) form a mold cavity (13), in such a way, that the two pressure mechanisms (19) cause a movement of the slide members (17) and further, the movement of the slide members (17) presses the plastic according to the volume contraction and thereby making the formed product without blow holes and shrinkage holes. (See abstract and figure 1)



Thus, Kumazaki (JP '330) teaches the slid-able wall parts (17) are movable in a direction of movement within the mold cavity with the mold cavity in a closed position.

Therefore, **it would have been obvious** for one of ordinary skill in the art at the time of applicant's invention to modify the mold apparatus as taught by the disclosure of Lovejoy et al ('740) through **providing** a movement of the slid-able wall parts within the mold cavity in a closed mold position **in order to** improve the quality of the obtained product by preventing the formation of the blow holes and the shrinkage holes in the solidified plastic part, as suggested by Kumazaki (JP '330).

Furthermore, as to **claims 2-3 and 5**, Lovejoy et al ('740) teach a first direction of movement in which the two mold parts (50 and 60) move toward and away from each other and a second direction of movement in which the slide-able walls (80, 82, 84, and 86) extend or retract from each other wherein the first and the second directions of movement include an angle of 90 and therefore, the first and the second direction of movement provide a right angle.

Moreover, Lovejoy et al ('740) teach the movement of the sidewall members between in an extended or retracted positions are affected by means of mechanical linkages coupled between the respective sidewall elements. The linkage elements (102) and (104) each have one end pivotally connected to the ejection plate (100) and their opposite ends pivotally connected to the sidewall members (80) and (82), respectively. (See lines 18-25, column 5) furthermore,

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the prior art teaches the sidewall members (84 and 86) are pivotally connected by respective linkages (110 and 112) to the ejection plate (100) in the same manner as the sidewall members (80 and 82). (See lines 48-53, column 5)

Therefore, as to **claim 4**, Lovejoy et al ('740) disclose four separate and independently moveable wall parts, which are provided in the mold cavity, move independently of each other by linkages (110 and 112).

Furthermore, the prior art teaches a core section (70) in which cooperates with the cavity of molding section (50) and the slide-able walls (80, 82, 84, and 86) to form the mold cavity. (See lines 16-22, column 4) therefore, as to **claim 6**, prior art teaches a core part of the mold cavity is surrounded from four sides by four movable wall parts.

Moreover, as to **claim 10**, Lovejoy et al ('740) teach the cavity in the mold part (50) include a bottom wall part having three inlet gates (46-48) as injection openings. (See lines 21-26, column 3)

Furthermore, Lovejoy et al ('740) disclose control mechanism for actuation of the movable core elements and sidewall mold components is a hydraulic cylinder (106) which is positioned rearward of the second mold section (60). Further, to accommodate the movement of this control mechanism, a spacer structure is provided between the platen (32) and the backside of the second mold means (60). (See lines 23-30, column 4 and lines 32-47, column 5) Therefore, as to **claim 11**, the prior art teaches drive means are provided for each movable wall part.

Also, as to **claim 12**, the prior art teaches a horizontal hydraulic molding (31) as a pressing device wherein the first direction of movement is parallel to the pressing direction of the pressing device. (See lines 43-61, column 2)

Claims 1- 9 and 11- 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald (US 3,433,292) in view of Kumazaki (JP 57-115330).

McDonald ('292) teaches a die machine as a mold apparatus comprising a front fixed platen (14) and a cover die holding block (20), all together, as a first mold part including a stationary die (21) as a central core, a movable platen (16), an ejector die holding block (22), and an ejector die (40), all together, as a second mold part including two core members (50) as second core parts which are disposed at a distance from the central core (21); furthermore, the apparatus comprises moveable wall parts (42, 44, 46, and 48) wherein a first direction of movement is defined as the direction that the moveable platen (16) moves towards and away from the fixed platen (14), and a second direction of the movement is defined as the direction in which the moveable wall parts (42, 44, 46, and 48) move towards and away from each other; wherein, the second direction of movement is perpendicular to the first direction of movement. (See lines 41-64, column 2 and lines 1-10, column 3; figures 2-3) therefore, the first and second direction of movement include an angle of 90° which is a right angle.

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McDonald ('292) also teaches the wall parts (42, 44, 46, and 48) are movable toward the central core part (21) in a second direction of movement between a first retracted position and a second extended position.

Furthermore, the central core part (21), the second core parts (50), and the movable wall parts (42, 44, 46, and 48) define a mold cavity, and the central core part and the movable wall part are disposed on the opposite sides of the second core part of the mold part and the movable wall parts (42, 44, 46, and 48) in such a way that the movable parts (42, 44, 46, and 48) are located at the side directions of the second core parts (50) facing away from the central core part (21); furthermore, the movement of the wall parts (42, 44, 46, and 48) are directed toward the second core parts (50) and the molten material is pushed by the wall parts against the first centered core part (21) and the second core parts (50). Furthermore, the moveable wall parts (42, 44, 46, and 48) of the mold are arranged for forming longitudinal walls of the cavity, and in an open position of the apparatus, the wall parts, together, provide a space volume which is greater than the volume of the wall parts in the closed position. (See lines 43-75, column 3 and lines 37-75, column 4; figures 2-3).

Furthermore, McDonald ('292) discloses a plurality of hydraulic cylinder means (56) as drive means which each include piston rods (66) connected to the wall parts (42, 44, 46, and 48) to extend or retract the wall parts (42, 44, 46, and 48) from the mold cavity. (See lines 51-57, column 4) Therefore,

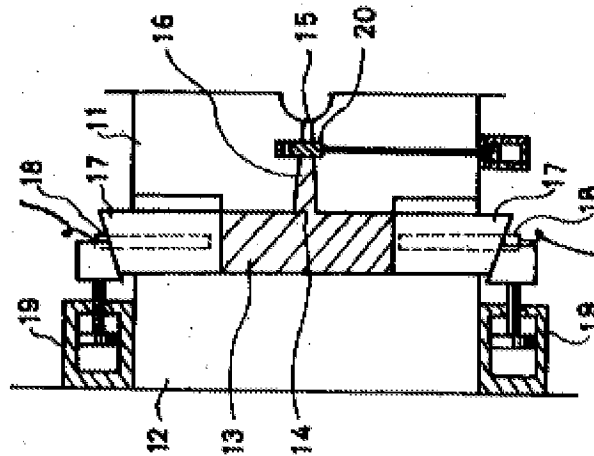
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McDonald ('292) teaches a plurality of separate and independently moveable wall parts to correspond with other mold members to form a mold cavity.

Moreover, McDonald ('292) teaches the movable platen (16) uses the moving force transmitted by the hydraulic cylinder (28) as a pressing device through the toggle linkage (32), (See lines 43-53, column 3) wherein the first direction of movement is parallel to the pressing direction of the pressing device, and each movable wall part and each of the drive means (56) move independently of the pressing device. (See figures 1 and 3)

However, McDonald ('292) **fails to teach** the slid-able wall part also is movable within the mold cavity in a closed mold position, as claimed in **claim 1** to provide a force against the molten plastic inside of the mold cavity in an extended position of the movable wall parts, as claimed in **claim 7**.

In the analogous art, Kumazaki (JP '330) teach a movable metal mold comprising a stationary mold (11), a movable mold (12) by way of a gate (15) and a spool (16) with a pouring port (14) in which the stationary mold in which the stationary mold (11) and the movable mold (12) associating with two movable slide members (17) form a mold cavity (13), in such a way, that the two pressure mechanisms (19) cause a movement of the slide members (17) and further, the movement of the slide members (17) presses the plastic according to the volume contraction and thereby making the formed product without blow holes and shrinkage holes. (See abstract and figure 1)



Thus, Kumazaki (JP '330) teaches the slid-able wall parts (17) are movable in a direction of movement within the mold cavity with the mold cavity in a closed position to provide a force against the molten plastic inside of the mold cavity in an extended position of the movable wall parts.

Therefore, **it would have been obvious** for one of ordinary skill in the art at the time of applicant's invention to modify the mold apparatus as taught by the disclosure of McDonald ('292) through **providing** a movement of the slid-able wall parts within the mold cavity in a closed mold position to provide a force against the molten plastic inside of the mold cavity in an extended position of the movable wall parts **in order to** improve the quality of the obtained product by preventing the formation of the blow holes and the shrinkage holes in the solidified plastic part, as suggested by Kumazaki (JP '330).

Response to Arguments

Applicant's **arguments** with respect to claims 1- 13 have been considered but are **moot** in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Masoud Malekzadeh whose telephone number is 571-272-6215. The examiner can normally be reached on Monday – Friday at 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin, can be reached on (571) 272-1189. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEYED M. MALEKZADEH/

Examiner, Art Unit 1791

/Steven P. Griffin/

Supervisory Patent Examiner, Art Unit 1791